

**Patent claims**

1. The use of a non-human adenoviral vector for producing a means for the transfer of genetic material by local injection into muscle cells or muscle cell complexes of mammals which display altered, also pathological manifestations, or into tumors, for the therapy of congenital, acquired or malignant disorders, comprising the coat of a non-human adenovirus and genetic material which is packaged therein and which comprises
  - (a) DNA sequences of a non-human adenovirus and
  - (b) one or more DNA sequences which code for peptides or polypeptides which are heterologous in relation to the non-human adenovirus, in operative linkage to expression control sequences.
2. The use as claimed in claim 1,  
**characterized in that**  
the virus is an adenovirus from a non-human species selected from mammals and birds.
3. The use as claimed in claim 2,  
**characterized in that**  
the virus is an ovine or bovine adenovirus.
4. The use as claimed in claim 3,  
**characterized in that**  
the virus is an ovine or bovine mastadenovirus or atadenovirus.
5. The use as claimed in claim 3 and 4,  
**characterized in that**  
the ovine adenovirus is the OAV isolate 287.
6. The use as claimed in any of claims 1 to 5 for transferring genetic material into human cells.

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7. The use as claimed in any of claims 1 to 6 for transferring genetic material into skeletal muscle.
8. The use as claimed in any of claims 1 to 7, characterized in that the muscle cells are selected from myocytes/myotubes/myofibers, fibroblasts, dendritic cells, endothelial cells and combinations thereof.
9. The use as claimed in any of claims 1 to 8, characterized in that the vector is administered more than once.
10. The use of a non-human adenoviral vector for producing a means for the transfer of genetic material for the production and isolation of recombinant proteins in cell culture, comprising the coat of a non-human adenovirus and genetic material which is packaged therein and which comprises
  - (a) DNA sequences of a non-human adenovirus and
  - (b) one or more DNA sequences which code for peptides or polypeptides which are heterologous in relation to the non-human adenovirus, in operative linkage to expression control sequences.

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